

CLAIMS

I claim:

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A' 1. An apparatus for use by a computer to provide a user of the computer with access to information resources, the apparatus comprising:

a non-volatile data storage device;

a first program module stored on said non-volatile data storage device in a computer-readable format;

10 said first program module being operable upon execution to display a graphical user interface comprising a window separated into a number of regions;

a first one of said regions including a number of user-selectable items, at least some of which are each associated with a different data set, said data sets each representative of a different category of information and each of said data sets comprising a number of user-selectable links to different information resources;

15 a second one of said regions comprising an information display region,

a second program module operable upon execution to select informational data to be displayed in said information display region;

20 wherein said first program module is operable in response to selection of a first one of said links to provide the user with access to its associated information resource and to notify said second program module of the selection of said first link; and

25 wherein said second program module is operable in response to notifications from said first program module to select the informational data to be displayed from among a larger amount of said informational data, said second program module further being operable to store statistical data regarding the display of said selected informational data.

38

2. An apparatus as defined in claim 1, wherein said informational data is selected by said second program module in accordance with the category of information associated with the one of said data sets that contains said first link.

5 3. An apparatus as defined in claim 1, wherein said second program module is stored in computer-readable format on said non-volatile data storage device and is stored as one or more files that are separate from said first program module, whereby said apparatus comprises a computer-readable memory.

10 4. An apparatus as defined in claim 1, wherein, when said second program module is stored on a server accessible by the computer over a computer network, said first program module is operable to access and download said second program module to said non-volatile data storage device via the network.

15 5. An apparatus as defined in claim 4, further comprising a third program module stored on said non-volatile data storage device, said third program module being operable to automatically request upgrade information from the server and to cause downloading and implementation of an upgraded version of at least one of said first and second modules.

20 6. An apparatus as defined in claim 1, wherein said information display region comprises a banner region and said informational data comprises one of a plurality of advertisements accessible to said second program.

25 7. An apparatus as defined in claim 6, wherein said second program is operable to select said one of said advertisements from among a first subset of said plurality of advertisements and, in response to each of the advertisements in said first subset having been displayed a selected number of times, to select said one of said advertisements from among a second subset of said plurality of advertisements.

39

8. An apparatus as defined in claim 7, wherein said second program is operable in response to each of the advertisements in said first subset having been displayed said selected number of times to request a new first subset of advertisements from a server and, in response to receipt of said new first subset, to replace the advertisements in said first subset with the advertisements in said new first subset.

9. An apparatus as defined in claim 6, wherein said second program is operable to select said one of said advertisements from among a plurality of said advertisements in accordance with the category of information associated with said first link.

10. An apparatus as defined in claim 6, wherein said second programs is operable to select said one of said advertisements in accordance with one or more keywords contained in the information obtained from the information resource accessed using said first link.

11. A computer-readable memory for use by a computer to provide a user of the computer with an automatically-upgradeable software application, comprising:

a non-volatile data storage device;

a program stored on said non-volatile data storage device in a computer-readable format, said program comprising a plurality of program modules;

at least one version identifier associated with one or more of said program modules, said version identifier(s) being stored on said non-volatile storage device;

wherein one of said program modules is operable upon execution to access said stored version identifier(s) and at least one updated version identifier from a server via a global public network, with said updated version identifier(s) representing one or more updated program modules accessible from a server via the public network, wherein said one program module is further operable to download one or more updated program modules when said stored version identifier and said updated version identifier are different, with said updated program

40

module(s) replacing one or more of said program modules stored on said data storage device, and, further, wherein said one program module is operable to store said updated version identifier.

5 12. A computer-readable memory as defined in claim 11, wherein said one program module is operable when executed by a microprocessor to compare said stored version identifier with said updated version identifier and, if said stored and updated version identifiers are different, to send a download request to a server via the public network.

10 13. A computer-readable memory as defined in claim 11, wherein at least some of said program modules each have a unique version identifier associated therewith and wherein said one program module is operable to generate a current blueprint of said program modules by accessing each of said unique version identifiers.

15 14. A computer-readable memory as defined in claim 13, wherein said one program module is operable to receive from the server an updated blueprint containing updated version identifiers and, wherein said one program module is further operable to compare said current and updated blueprints and to download one or more updated program modules if any of the updated version identifiers from the updated blueprint do not match a unique version
20 identifier from the current blueprint.

15 15. A computer-readable memory as defined in claim 13, wherein said one program module is operable to send the current blueprint to a server via the public network.

25 16. A computer-readable memory as defined in claim 11, wherein said version identifiers comprise a module identifier and a module version number.

17. A computer-readable memory as defined in claim 16, wherein said one program module has a version identifier associated therewith and wherein said one program module is operable to upgrade itself when its version identifier does not match its associated updated version number.

18. A computer-readable memory as defined in claim 17, wherein said one program module is written in a programming language and has a number of module commands associated therewith, each of said module commands being used by said one program module to invoke one or more instructions in said programming language, wherein said one program module is operable to perform a function in response to receiving one or more of said module commands, whereby additional module commands can be added to said one program module by automatically upgrading said one module command via the public network.

19. A computer-readable memory as defined in claim 18, wherein said one program module is stored in a file and is operable to upgrade itself by passing control to an auxiliary module, terminating its execution, and thereafter being replaced by an updated version downloaded from a server.

20. A computer-readable memory as defined in claim 16, wherein each of said modules comprise a separate computer file and wherein said module identifier includes a filename.

21. A computer-readable memory for use by a computer to provide a user of the computer with an integrated graphical interface to a plurality of computer resources, the computer-readable memory comprising:

a non-volatile data storage device;

a program stored on said non-volatile data storage device in a computer-readable format;

said program being operable upon execution to display a graphical user interface comprising an application window separated into a number of regions,

a first one of said regions including a number of graphical objects, at least some of which are each representative of a different computer application and are selectable by the user via an input device, wherein said program is operable upon selection of one of said graphical objects to initiate execution of the computer application associated therewith;

a second one of said regions including a number of menu items selectable by the user, each of said menu items having a function associated therewith;

a third one of said regions including a number of user-selectable items, at least some of which are each associated with a different data set, said data sets each comprising a number of links to different information resources, wherein said program is operable in response to selection of one of said items to provide the user with access to its associated data set;

a fourth one of said regions including a user-input text field, wherein said program is operable to access one or more computer files specified by the user via text inputted into said text field;

a fifth one of said regions comprising a banner region, wherein said program is operable to access banner data and display said banner data in said banner region; and

said window including a display object that is selectable by the user via the input device, wherein said program is operable in response to selection of the display object to access information stored on a data storage device located in a disk drive within the computer.

12x. A computer-readable memory as defined in claim 21, wherein said application window includes a sixth one of said regions that includes a number of user-selectable graphical icons, each of which is associated with one of said menu items, wherein said program is operable in response to selection of one of said graphical icons to carry out the menu item associated with the selected graphical icon.

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23. A computer-readable memory as defined in claim ¹¹21, wherein each of said data sets comprise at least one link to at least one information resource.

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~~24. A computer-readable memory as defined in claim ¹¹21, wherein said items in said third region comprise link category buttons and wherein said program is operable in response to selection of one of said link category buttons to display a second window containing links from the data set associated with said one of said link category buttons.~~ ^{the}

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25. A computer-readable memory as defined in claim ¹⁴24, wherein said second window can be positioned by the user independently of the position of said application window.

26. A method of providing demographically-targeted advertising to a computer user, comprising the steps of:

5 providing a server that is accessible via a computer network,
permitting a computer user to access said server via said computer network,
acquiring demographic information about the user, said demographic information including information specifically provided by the user in response to a request for said demographic information,

20 providing the user with download access to computer software that, when run on a computer, displays advertising content, records computer usage information concerning the user's utilization of the computer, and periodically requests additional advertising content,
transferring a copy of said software to the computer in response to a download request by the user,

25 providing a unique identifier to the computer, wherein said identifier uniquely identifies information sent over said computer network from the computer to said server,
associating said unique identifier with demographic information in a database,
selecting advertising content for transfer to the computer in accordance with the demographic information associated with said unique identifier,

42

transferring said advertising content from said server to the computer for display by said program,

periodically acquiring said unique identifier and said computer usage information recorded by said software from the computer via said computer network, and

5 associating said computer usage information with said demographic information using said unique identifier.

27. The method of claim 26, further comprising the step of periodically selecting and transferring additional advertising content to the computer in response to a request therefor.

28. The method of claim 26, wherein said computer network is a publicly-accessible global computer network.

29. The method of claim 26, wherein said unique identifier identifies said copy of said software from among other copies of said software

30. The method of claim 26, wherein said providing a unique identifier step further comprises storing a cookie on the computer.

31. The method of claim 26, wherein said providing steps further comprise providing said computer software which, when run on the computer, requires a user login to use said software and associates a different unique identifier with each of a number of valid users of said software.

32. The method of claim 26, wherein said providing steps further comprise providing said computer software which, when run on the computer, requires a user login to use said software and uses the user login to associate one of a number of unique identifiers with the computer usage information recorded by said software.

33. The method of claim 26, wherein said computer usage information includes data regarding information resources accessed by the user over the global computer network.

5 34. The method of claim 26, wherein said computer usage information includes data regarding software applications run by the user on the computer.

35. The method of claim 26, wherein said acquiring step further comprises requesting said demographic information in response to a request from the user to download said software and receiving said demographic information from the user prior to providing the user with access to said software.

35. The method of claim 26, wherein said step of providing download access further comprises examining said demographic information to determine that said demographic information includes certain required information and, upon determining that said demographic information includes said required information, providing the user with said download access to said software.

36. The method of claim 35, further comprising the step of limiting said required information to demographic information, whereby the user is permitted anonymous download access to said software and the server is provided demographically-relatable computer usage information.

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25 37. A computer-readable memory for use by a computer to provide a user of the computer with targeted information, comprising:
a non-volatile data storage device;

a program stored on said non-volatile data storage device in computer-readable format, said program being operable upon execution to display a window containing an information display region;

5 wherein said program is operable to select and display informational data in said information display region, said informational data comprises a plurality of display objects with at least some of said display objects each having a data set associated therewith, said data sets each including one or more of the following data items:

a category identifier that indicates a category of information to which the associated display object relates, wherein said program is operable in response to a user action relating to one of said categories of information to display in said information display region a display object having an associated category identifier that relates to that one category of information;

a software application identifier that identifies a software application that may be accessible to the user via the computer, wherein said program is operable in response to user selection of the software application to display in said information display region a display object associated with the selected software application.

17
38. A computer-readable memory as defined in claim ~~37~~¹⁶, wherein said category identifier comprises at least one keyword and wherein said program is operable in response to user access to an information resource to determine if said accessed information resource contains said keyword and, if so, said program is operable to display in said information display region a display object associated with said keyword.

18
25 39. A computer-readable memory as defined in claim ~~37~~¹⁶, wherein said program is operable in response to user selection of an associated group of links that are related to one of said categories of information to display in said information display region a display object associated with that one category of information;

43

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~~40~~. A computer-readable memory as defined in claim ¹⁸~~39~~, wherein said program is operable to provide a user interface comprising a number of user-selectable items, each of which represents a different group of associated links and each of which is associated with one of said categories of information, wherein said program is operable in response to user selection of one of said user-selectable items to display in said information display region a display object associated with the category of information to which that one selected item relates.

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~~41~~. A computer-readable memory as defined in claim ¹⁶~~37~~, wherein one or more of said data sets include a destination identifier that provides a link to an information resource, wherein said program is operable in response to user selection of a display one of said display objects to cause the computer to access the information resource associated with said selected display object.

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~~42~~. A computer-readable memory as defined in claim ¹⁶~~37~~, wherein one or more of said data sets include at least one trigger link, wherein said program is operable in response to user access to an information resource identified by said trigger link to display in said information display region the display object associated with said trigger link.

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~~43~~. A computer-readable memory as defined in claim ¹⁶~~37~~, wherein said display object comprises a graphical image.

44